

# **The Sociobiological Foundations of Stability and Support Operations**

A Monograph  
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## **ABSTRACT**

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Conflict is as old as humankind itself. Why man fights can be explained through culture and biology. With the fall of the Soviet empire in 1989, a global collective conscience has surfaced with regard to nations intervening in internal and international crises. Though the United Nations (UN) has undertaken peace operations since its inception, it has taken an increasingly active role in stability and support operations (SASO) in the post-Cold War world. In an era of dwindling resources within the Department of Defense, United States (US) participation in stability and support operations has been, and promises to be in the future, a significant commitment of scarce national treasure.

Stability and support operations are a polarizing and pressing issue on the social and political agendas of nations and the United Nations. The settling of disputes by a third party is greatly influenced by that party's ability to change the behavior of the belligerents. Without a thorough understanding of why man wages war, intervening third parties are unable to accurately identify the underlying causes of the conflict and the incentives and disincentives in modifying the belligerents' behavior.

In order to wisely, efficiently, and (most importantly) successfully commit national treasure in support of stability and support operations, the civilian leaders, politicians, and combatant commanders of the United States must make informed decisions based on analysis of the sources of the conflict and the predicted efficacy of courses of action to alter the belligerents' behavior. Apprehending the cultural and biological foundations of why man fights is fundamental to understanding the mental depth of the battle space, ensuring operational versatility in new environments, and allowing rapid shifts of cultural agility in order to seize the initiative in any environment. This cross-cultural exploitation gives the Army a critical perspective to see into situations and act decisively, knowledgeably, and deftly in the most complex of environments – stability and support operations.

The success of stability and support operations hinges on the versatile warrior of today possessing the *coup d'oeil* of sociobiological knowledge of the belligerents. With a thorough understanding of why man wages war, intervening third parties are "armed" with the ability to accurately identify the underlying sources (not just symptoms) of the conflict and the incentives and disincentives in modifying the belligerents' behavior.

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# **CHAPTER ONE**

## **Introduction**

So elemental is the human need to endow the shedding of blood with some great and even sublime significance that it renders the intellect almost entirely helpless.<sup>1</sup> Martin Van Creveld

Conflict is as old as humankind itself. Why man fights can be explained through culture and biology. With the fall of the Soviet empire in 1989, a global collective conscience has surfaced with regard to nations intervening in internal and international crises. Though the United Nations (UN) has undertaken peace operations since its inception, it has taken an increasingly active role in stability and support operations (SASO) in the post-Cold War world.<sup>2</sup> In an era of dwindling resources within the Department of Defense, United States (US) participation in stability and support operations has been, and promises to be in the future, a significant commitment of scarce national treasure.

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In order to wisely, efficiently, and (most importantly) successfully commit national treasure in support of stability and support operations, the civilian leaders, politicians, and combatant commanders of the United States must make informed decisions based on analysis of the sources (not just symptoms) of the conflict and the predicted efficacy of courses of action to alter the belligerents' behavior. The audiences of this monograph are those civilian leaders, politicians, and combatant commanders committing scarce human and fiscal resources in support of stability and support operations around the world.

The nature of collective human aggression, as expressed in stability and support operations, transcends nationalism, reaching instead down to the very nature of why man fights -- his human nature in the form of his biological and cultural evolution. By exploring the sociobiological foundations of human aggressive behavior this monograph explores the etiology of conflict. Instead of using the nation state as the unit of analysis, culture, with its biological underpinnings, is the societal element under observation. These causes for man's

behavior and conflict are especially apposite to stability and support operations, enabling those who interfere to do so fully armed with the insight of cause and the goal of good effect.

Simply put, stability and support operations have deep roots in the sociobiology of warfare itself. Failure to understand these origins will unnecessarily compromise any fundamental understanding of stability and support operations as a distinct category of modern conflict.

## CHAPTER 2

### Biological Foundations for Human Warfare

It makes no difference what men think of war....War endures. As well ask men what they think of stone. War was always here. Before man was, war waited for him. The ultimate trade awaiting the ultimate practitioner.<sup>3</sup>

Cormac McCarthy

- **Why the genes made him do it.**

Why does man fight? He cannot help it. Warfare is endemic to humankind. From prehistoric man and ancient primitive societies to the present, humankind willingly participates in the most destructive form of social cooperation: warfare.<sup>4</sup> Is it nature or nurture? It is both. Man participates in warfare because he is genetically predisposed to do so and because the cultures he wraps himself within require it. Warfare existed long before the modern nation state; therefore, in searching for solutions, those who intervene must look beyond nationalism and the symptoms of conflict to its true causes.

From the time Thomas Hobbes (1588-1679) wrote his famous conclusions about warfare and society, describing the natural condition of humanity as "solitary, poor, nasty, brutish and short," philosophers, ethnographers, and anthropologists have been debating the "nature



versus nurture" idea of human aggressive behavior.<sup>5</sup> Without civilized society and its central authority and strict laws to enforce proper behavior, Hobbes believed that anarchy would ensue. Man, he believed, was in his natural state when at war.

Hobbes' most famous critic burst on the scene in the mid-eighteenth century. An intellectual of the day, Jean-Jacques Rousseau believed that man was warlike only when his natural passions were thwarted in a civilized world that had "unnatural" institutions like monogamy and private property.<sup>6</sup> Rousseau's notion of the Noble Savage was a popularly held belief among colonizing Westerners – most of whom had never left the comfort of their living rooms.

Rousseau's widely held theory of pacific primitive man was blindly accepted up until the time when anthropologists adopted the participant observation methodology in the beginning of the twentieth century. With anthropologists like Ruth Benedict and Napoleon Chagnon out of their armchairs, living among the people they were studying and learning their languages, primitive societies that did not fit the Noble Savage characterization were soon discovered, studied, and written about. Hobbes seemed to have won in the intellectual debate between the peaceful primitive man ideas of Rousseau and Hobbes' view of man living in "continual fear and danger of violent death"<sup>7</sup>.

Hobbes knew instinctively what man has since been able to prove through science: that man is by nature aggressive and warrior-like. It is a biological imperative.

Beginning with the primordial soup, life on earth is about combat. The top of the food chain, man, varies little from the rest of the animal world. He competes for resources to survive, he breeds, and he creates a social environment/social structures for his offspring.

The very building blocks of man are continually competing for survival in the ultimate Clausewitzian duel. At the molecular level, nucleic acid chains are competing for amino acids in order to produce cellular proteins. Those protein strands that replicate faster win the war of resources, denying nucleotides to other nucleic acid chains. Regeneration of nucleic acids by replication is a form of asexual reproduction. The most efficient way to reproduce, asexual reproduction allows a single parent to replicate his genetic code for as long as the reproductive resources last. If there is a change in the environment or the required molecular building blocks grow scarce, all the cellular proteins are doomed. This battle of creation and survival transpires at the molecular level, obscured by nature's more obvious survival mechanisms: sexual reproduction and natural selection.

Natural selection, consisting of group, kin, and individual selection, is the impetus for organisms to compete with one another for

resources, withstand environmental changes, and adopt successful behavioral strategies that promote survival.<sup>8</sup> Victorious organisms are therefore able to pass on their desirable traits to their progeny, while the weaker organisms are obliterated from the genetic pool before they have a chance to procreate.

Nature's other survival mechanism for ensuring the survival of a species, sexual reproduction facilitates the combining of winning traits from two successful adults. In turn, their offspring's chance for survival and ultimately reproduction is greatly increased.

Competition for genetic reproduction privileges is fierce and found throughout the animal kingdom from single cells to complex organisms. The competition to spread one's genes ensures that over time, the strongest, smartest, or cleverest of a species survives.

The ultimate survival mechanism, aggression is fundamentally biological; it does not result from agriculture, acquiring possessions, or technology. It is not uniquely human. Man's proclivity to slaughter is manifested in him through his animalistic brain. Dr. Paul D. MacLean first introduced the idea of the "triune brain." The triune brain includes the "reptile brain" that sits at the very center of the cranium ensconced inside the "mammalian brain," like an egg yolk in an egg white. Both brains are covered with a thin layer neocortex called the primate brain. These three brains, together, influence man's nature,

thoughts and actions. Each brain within man's brain developed in response to the needs of evolving hominids. The reptilian center controls the instinctual mechanisms such as mating, hunting, territory control, and aggression. The mammalian brain controls, among other emotions, social behavior and the nurturing of children. The surrounding primate brain gives man his ability to reason, invent language, and create culture.<sup>9</sup> Man's behavior is the consequence of both the impact of culture and the cacophony of these disparate voices inside his brain.

Man's animalistic brain, without even considering the added effect of culture, is mirrored in the observed behavior of chimpanzees. Chimpanzees, man's biological near-twin, organize themselves into raiding parties that terrorize and destroy other chimpanzee bands.<sup>10</sup> Chimpanzees have been characterized by one biological ecologist who did years of field research in the jungles of Uganda as "the happy-go-lucky chimpanzee has turned out to be the most lethal ape – an organized, cooperative warrior."<sup>11</sup>

Aggression borne out of survival, whether through one's own actions or one's DNA, is autocatalytic.<sup>12</sup> There is a biological advantage to humans who immediately look upon strangers warily, separate the world into friends and enemies, and solve disputes with aggression. These traits are mutually reinforcing and cause those that exercise

them to be the humans that survive and pass on their genetic code. These epigenetic rules are universally apparent in humans from infancy onward.<sup>13</sup> Unlike the rest of the animal kingdom that usually base sensory input on smell and taste, human epigenetic rules are primarily audiovisual. These rules are the foundation for the social bonds and are established in humans throughout their childhood. Studies have shown that within two days of birth, infants prefer the sight of their own mother to a strange female. Similarly, women, in a very short time can distinguish the cry and odor of their own child.<sup>14</sup> The ability to separate the world into friend or foe begins with man's arrival into this world.

When societies and states begin to disintegrate into warfare, the population separates itself into lowest common denominators to identify the friend or foe. In World War I Europeans fought one another when divided as Frenchmen against Germans. Unlike warfare between nation states, stability and support operations often are established where ethnic and cultural groups, despite other affiliations such as nationality or marriage, divide into warring factions such as Hutus and Tutsis in Rwanda; Irish Nationalists and Ulster Unionists in Northern Ireland; Serbs, Croats, and Muslims in the Former Yugoslavia; Muslims and Animists in Sudan; and clans in Somalia. Man's biological imperative of survival breeds social bonds and chasms.

Just as man and his cells instinctively compete for survival so does he compete for reproductive privileges. It is through this competition to ensure his DNA survives him on earth that man also makes war. Man's visceral voice in his head carries the chant "Make war to make love," not the 1960's anthem "Make love, not war." Reproductive rights and the continuation of a particular genetic line characterize warfare across the continuums of societal organization and time.

Transcending the boundaries of bands, tribes, chiefdoms, and states, reaching as far back as the dawn of man and up to the present, man's biological imperative to plant his seed is extant in warfare. Also manifested in his cultures, this biological imperative is integral to the rituals and mores of societies under the guise of power, prestige, and the spoils of victory.

In the same way that the ancient tribes of Israel in the Old Testament were told to eradicate the Jebusites, Canaanites, Philistines, Hittites, Perizzites, Moabites, Amorites, and Ammonites because they did not carry the seed of Abraham, so too does modern warfare involve genetic competition and the procreation of the species.<sup>15</sup>

Replacing one gene pool for another is also found in more recent examples during World War II. During Operation Barbarossa, reproductive demands and the search for territory in which to settle

Germans were the principles behind Hitler's plan for *Lebensraum* and the need to occupy the Russian countryside. Another example of gene pool tampering came from the United States' commander-in-chief during "the good war." In *War Without Mercy*, John Dower describes President Roosevelt's desire for Japanese miscegenation to ensure that they, as victims of retarded human evolution, would be rid of an "unfortunate biological curse."<sup>16</sup>

The expansion of one's empire sometimes follows the warrior's own growing brood. Ibn Saud of Saudi Arabia's post-adolescent life was spent as a marauding desert raider.<sup>17</sup> He was very successful in this occupation and eventually amassed a large fortune, enormous land holdings, many wives, and power. The ruler of a country named after him, King Saud's most impressive accomplishment was his ability to breed. With his many partners he fathered forty-five "official" sons and at least as many daughters. Now, less than thirty years after his death, there are well-nigh five hundred children, grandchildren, and great-grandchildren in the royal family.<sup>18</sup>

The reproductive success of a warrior, whether in a marauding band society, a tribe, or a modern nation state, goes hand in hand with his military success. In the 1960's, Napoleon Chagnon wrote a significant and enduring ethnography on the Yanomamö of the Amazon Basin. In his book, Chagnon writes of the Yanomamö as a fierce people

that are in a constant state of warfare. In his studies of the Yanomamö, Chagnon found that the *unokais* (veterans who have killed) are socially rewarded and enjoy greater prestige among the tribe. They have, "on average, more than two-and-a-half times as many wives as non-*unokais* and over three times as many children."<sup>19</sup> "Indeed, it is certain that during most of human existence, failing to be violent enough seriously reduced a man's reproductive success."<sup>20</sup> Whether through extra wives or election to public office, men who survive battle and return home as heroes are generously rewarded by their society.

In his desire to plant his seed, man's reproductive strategy during war often turns to rape. "[M]ass rape is a massive reproductive victory."<sup>21</sup> Women in a war zone are vulnerable and unprotected. During a conflict, crimes like rape often go unpunished. Warriors dwell on their mortality and their likelihood of fatherhood. Parental responsibility is not a factor for the warrior rapist as future proof of paternity is unlikely. In raping the wives and daughters of the vanquished, the victorious warriors ensure their own genetic victory and the humiliation of the men who failed to protect the victims. Often, the marauding men kill the victims' children to ensure the cessation of lactational amenorrhea and thus increase the opportunity to breed. History is full of horrifying examples of rape during conflict: the Greeks during the Trojan War, the Mongols invading Europe, the Kwakiutl



Indians in the Pacific Northwest, the Visigoths in Rome in 410; the Japanese in Nanking, China in 1937; Pakistani soldiers in Bangladesh in 1971; Iraqi soldiers in Kuwait in 1990; and Hutu troops in Rwanda in 1994.<sup>22</sup>

Among the Yanomamö, the cost of being a weak village is the loss of women to a stronger group and their raiding party. According to Chagnon, "A captured woman is raped by all the men in the raiding party and, later, by the men in the village who wish to do so but did not participate in the raid. She is then given to one of the men as a wife."<sup>23</sup> A characteristic of primitive societies and modern nations states, during world wars as well as stability and support operations, rape is a biological adaptation and a universal element of warfare.

Whether one looks at chimpanzees in the jungles of Uganda or a major multi-national military offensive fought in the sands of the Middle East, individual primate aggression, genetically predetermined in his will to survive and reproduce, is the catalyst behind human cooperative violence -- warfare.

Man, with his biological imperatives at the fore and his proclivity for cooperative violence intact, finds a fertile breeding ground of conflict within his own man-made environment -- his culture. Stability and support operations, often characterized by a lack of operational governance and stripped of the cultural veneer of "civilization" in the

populations in which they occur, typify the reptilian brain seizing a society *en masse* and warping its culture to feed its needs.

## CHAPTER THREE

# Cultural Foundations for Human Warfare

We know that a man can read Goethe or Rilke in the evening, that he can play Bach and Schubert, and go to his day's work at Auschwitz in the morning.<sup>24</sup>

George Steiner

We must, however, acknowledge, as it seems to me, that man with all his noble qualities, with sympathy which he feels for the most debased, with benevolence which extends not only to other men but to the humblest living creature, with his god-like intellect which has penetrated into the movements and constitution of the solar system – with all these exalted powers – Man still bears in his bodily frame the indelible stamp of his lowly origin.<sup>25</sup>

Charles Darwin

### • What does culture have do with it?

To fully understand the societal de-evolution that accompanies cultures embroiled in conflict and gives rise to stability and support operations, one must recognize the sources of conflict, both biological and cultural, found across the organizational continuum of bands, tribes, chiefdoms, and states. It is also necessary to appreciate that warfare existed long before the modern nation state and therefore one

must look beyond nationalism and the symptoms of conflict to its true causes, especially in considering stability and support operations.

Despite the physiological and archaeological evidence to the contrary, many anthropologists have continued to regard primitive man and cultures of prehistory as non-aggressive. With the same arrogance, superiority, and moral self-justification that accompanied European colonization, ethnographers and anthropologists in the last century clung to the idea that simple, primitive man was somehow exempt from Hobbes' pessimistic view of humanity. Truly "uncivilized" behavior was reserved for the civilized, modern world of those intellectuals. In the last forty years, the subjects of primitive societies and warfare have come out of the closet. Slowly, the social science academic world has begun to debate and explore the nature versus nurture argument and the role of primitive man in warfare and the overwhelming cultural evidence that man's biological imperative to wage warfare is matched by a complementary cultural imperative.

When true men diverged from the ancestral man-apes, the brain added one cubic inch – about a tablespoonful – every hundred thousand years. The rate was maintained until about one quarter of a million years ago, when, at about the time of the appearance of the modern species *Homo sapiens*, it tapered off. Physical growth was then supplanted by an increasingly prominent cultural evolution. With

the appearance of the Mousterian tool culture of the Neanderthal man some seventy-five thousand years ago, cultural change gathered momentum... Starting about ten thousand years ago agriculture was invented and spread, populations increased enormously in density, and the primitive hunter-gatherer band gave way locally to the relentless growth of tribes, chiefdoms, and states.<sup>26</sup>

As illustrated above, biological evolution is slow and unpredictable. Through genetic combinations and mutations, a species becomes endowed with hard-coded traits that ensure its survival but this process may take many hundreds of thousands of years. Simple organisms have the luxury of time. Single cell organisms are prolific, replicating *ad infinitum* given sufficient resources, and are capable of enduring environmental changes better than more complex organisms. More complex organisms, however, are at the mercy of time and nature for their more complex biological evolution. More sophisticated organisms are therefore compelled to contribute directly to increasing the odds of their survival by adopting new behavioral (cultural) contingencies or coping strategies. As B.F. Skinner wrote in his seminal text *Beyond Freedom and Dignity*,

“The fact that a culture may survive or perish suggests a kind of evolution, and a parallel with the evolution of species.... A culture corresponds to a species. We describe it by

listing many of its practices, as we describe a species by listing many of its anatomical features. .... A culture, like a species, is selected by its adaptation to an environment: to the extent that it helps its members to get what they need and avoid what is dangerous, it helps them to survive and transmit the culture.<sup>27</sup>

When the environment changes or predation substantially alters the indigenous animal population, complex organisms adopt behavioral coping strategies that enable them to survive in such dynamically changing circumstances. This ability, called culture in man, precedes the biological characteristics that are a part of his cultural and genetic endowment. Wilson describes the gene-culture coevolution linkage as flexible, still basically unmeasured, and "tortuous: Genes prescribe epigenetic rules, which are the neural pathways and regularities in cognitive development by which the individual mind assembles itself. The mind grows from birth to death by absorbing parts of the existing culture available to it, with selections guided through [inherited] epigenetic rules...."<sup>28</sup>

"The capacity to undergo the changes in behavior which make a culture possible [is] acquired in the evolution of the species, and, reciprocally, the culture determines many of the biological characteristics transmitted."<sup>29</sup> By combining biological and cultural evolution, man has an incredible ability to adapt – an ability that has

allowed him to ascend and thrive on the top of the earth's food chain and in almost every niche on earth.

Edward O. Wilson, a preeminent biologist and Pulitzer Prize winner, writes that one must consider "the determinants of aggression at the three levels -- the ultimate, biological predisposition; the requirements of the present environment; and the accidental details that contribute to cultural drift -- [to]... fully comprehend its evolution in human societies."<sup>30</sup> Wilson asserts that man's biological disposition to aggression is self-perpetuating in a Darwinian sense as well as institutionalized with the rise of organized societies like chiefdoms and states. Organized aggression, warfare, thus became "an instrument of policy of some of the new societies, and those that employed it best became -- tragically -- the most successful."<sup>31</sup> Naturally, this same organized aggression is also found among sub-cultures of those societies and becomes the basis for conflict in stability and support operations environments.

Although not the most violent of the planet's animals, man is a result of biological evolution.<sup>32</sup> Traits that allow certain individuals advantages are "encoded" through natural selection. Self-perpetuating and self-correcting, human evolution assures continuation of the species and, if left to its own devices, assures optimal attributes are continued. Genetic loading short-circuits Darwinian evolution. For

example, without the advent of spectacles, good eyesight would be a decided advantage for mating and survival. In the case of warfare, a society cannot be too violent or it will prosecute war to extinction. Conversely, a society cannot exist entirely without at least defensive mechanisms and the threat of violence or it will be subsumed by another society and lost forever. Unilaterally halting aggressive behavior means falling victim to it. As a result of organized warfare, natural selection rises to the societal level.<sup>33</sup> Man's cultures, defined by Wilson as "the total way of life of a discrete society – its religion, myths, art, technology, sport, and all the other systematic knowledge transmitted across generations,"<sup>34</sup> are the web of memes<sup>35</sup> that guide his behavior. A kind of genetic loading, culture is both the catalyst and the limiting factor for man's aggression.

This biological aggression became institutionalized over the millennia as man began to organize himself into bands, tribes, chiefdoms, and states.<sup>36</sup> Organizing collectively is autocatalytic. This autocatalysis creates population growth, the division of labor, efficiencies in food production, and the growing need for bureaucracy.

Beginning with bands, organizing collectively leads to efficiency in hunting and gathering and, as a result, more net available calories. With more net calories and the creation of food surplus, the group can support more children who in turn require more food and therefore



increased hunting and gathering. More children in the group are a result of decreased infant mortality and improved maternal health, resulting from the improvements in diet. The ever-growing collective organization becomes ever more complex or, under the weight of mismanagement or the desire to remain nomadic, breaks down into smaller bands from whence it came. The desire for a society then to increase in complexity from band to tribe to chiefdom to state is dependent on whether the supporting infrastructures of control grow with it.

As explained by Jared Diamond, physiologist, evolutionary biologist, biogeographer, and award-winning writer, "large or dense populations arise only under conditions of [intensive] food production, or at least under exceptionally productive conditions for hunting-gathering .... Intensified food production and societal complexity stimulate each other...[and lead] to population growth."<sup>37</sup> These three conditions are autocatalytic because complex societies (chiefdoms and states) are, by necessity, centralized and "uniquely capable of organizing public works,.... long-distance trade, ....and activities of different groups of economic specialists (such as feeding herders with farmers' cereal, and transferring the herders' livestock to farmers for use as plow animals)."<sup>38</sup>

Intensive food production has other by-products that have enormous impact on the culture of complex societies. As a result of cooperative, seasonal labor pools that are idle after the harvest, the centralized government has a ready work force to undertake civic projects or participate in warfare. Additionally, the stored surplus food feeds the re-directed labor pools and allows for economic specialization, giving rise to self-perpetuating bureaucracy/kleptocracy and a hierarchical social system.<sup>39</sup> This societal organization by necessity develops permanent, stationary cultural memes. Nomadic lifestyles no longer fit into this society. Its members demand that each other “shares the load” and contributes to the good of the group. The accumulation of wealth and possessions, the building of public works, and the maintenance of the hierarchical social system all require and are required by the complex centralized society, the growing population, and the labor-intensive agrarian economy.

When a centralized, complex society develops a division of labor, two groups ultimately emerge: the producers and the consumers. The producers provide calories for the society, through hunting, fishing, animal husbandry, and agrarian pursuits. The consumers consume the calories produced for them in exchange for their skills at various trades. In order to avoid distractions as they tend their flocks and crops and manage their trades and businesses, both producers and

consumers require a means of protection against those who do not have surpluses.

Ultimately, a third group, a warrior class, becomes a necessity as the division of labor intensifies and evolves, thus enabling the producers to focus exclusively on tending their fields, freeing them from the onerous duty of constantly standing guard over their labor, and the craftsmen to pursue their arts for the betterment of the group. Conflict resolution in complex societies (chiefdoms and states) is centralized and includes laws and judges when the society grows to over approximately 50,000 members.<sup>40</sup>

Complex societies are possible due to intensive food production that allows for large populations, a division of labor, and the stratification of society. However, the complex organization of that society that allows it to run efficiently is required for other reasons.

There are economic and space considerations when organizing and running large, complex, food producing societies. Population density, the requirement for arable land, and the need to establish economic systems require that there be a centralized management infrastructure in place. On both an individual and collective basis, complex societies must have systems in place for wealth and goods redistribution (due to specialization) and inter-state or inter-chiefdom economic reciprocal exchanges.

Centralized authority is also a necessity due to decision-making and conflict concerns. When a group grows beyond the size that each member is equally informed, each member can be heard by all in an open forum, and each member who desires to speak has the opportunity to do so, then the band and tribe method of communal decision making is obsolete. When the group grows to the size that communal decision-making no longer fulfills the important need of decision making in the community then a centralized authority must assume that responsibility on behalf of the members of the society.

The world today is characterized by an interdependent, complicated web of complex societal governments and traditional primitive forms of government. In some instances nations internally span the continuum of social organization. Oftentimes in situations that result in the need for stability and support operations, the obsolescence of communal decision-making has created a disenfranchised feeling among sub-cultures in the society. The resulting perception of relative depravation is a unifying cause in fomenting dissent and collective aggression.<sup>41</sup>

Conflict and conflict resolution are an additional enormous responsibility of centralized management. "In a band, where everyone is closely related to everyone else, people related simultaneously to both quarreling parties step in to mediate quarrels. In a tribe, where many

people are still close relatives and everyone at least knows everybody else by name, mutual relatives and mutual friends mediate the quarrel.”<sup>42</sup> When there no longer is self-interest in conflict cessation, the size of the group has grown past the point that onlookers or relatives on each side know one another. It is at this point that the society can no longer rely on its members to resolve conflicts; conflicts between unrelated strangers will instead escalate out of control beyond the two original parties. Societies this complex and large require a centralized authority to “monopolize force and resolve conflicts” to maintain stability.<sup>43</sup>

When societies grow large and ethnically diverse they require that a centralized authority manage territory, resources, conflicts and decision-making. If the society does not then it implodes. As in the case of the Former Republic of Yugoslavia and its reduction to cultural ethnic common denominators that led to state collapse and bloodshed, typically after implosion come stability and support operations. However there is a downside to centralization, as aptly expressed by the scientist Jared Diamond:

....[C]entralization of power inevitably opens the door – for those who hold the power, are privy to information, make the decisions, and redistribute the goods – to exploit the resulting opportunities to reward themselves

and their relatives. To anyone familiar with any modern grouping of people, that's obvious. As early societies developed, those acquiring centralized power gradually established themselves as an elite, perhaps originating as one of several formerly equal-ranked village clans that became "more equal" than the others.<sup>44</sup>

Power corrupts; with his power one man's freedom is another man's oppression. As seen in stability and support operations, the inability of those in power to adequately provide for and lead the population yields a fertile ground for subcultures to coalesce and begin a conflict. Somalia, in the early 1990s, is an example of this sad state of affairs. Evidenced by the starving population despite humanitarian relief entering the country, clan leaders in power impeded the distribution of relief supplies to the starving masses. Goaded into action by the media, the United States and the United Nations established stability and support operations for almost two years to aid and rebuild Somalia.

Societies that successfully manage themselves prosper. The efficiency with which they manage their territory, decision making, resources, and conflict resolution determines whether they breakdown into simpler smaller groups, maintain their status, or are usurped by a stronger better managed society. How well a society manages military

power and develops better technology, to effectively manage a larger territory, increased resources, more complex decision making, and conflict resolution, determines whether it successfully seizes other failing societies and increases in size and complexity. The lack of or loss of bureaucratic control in societies often foments the aggression that leads to the breakdown of complex societies, leading to the need for intervention and the imposition of stability and support operations.

The survival of a society is also the survival of a culture. In its most basic form, culture mirrors the same biological imperatives of survival and reproduction. As manifested in man's behavior, culture provides the memes that make man wage war. Religion, resource protection, and dominance hierarchies, together or individually, provide the impetus for man to wage war on his fellow man.

Religion is a cultural meme that often gets the blame for man's aggressive behavior. One need only look at the fanaticism of the Inquisition, the barbarity of the Crusades, and antipapal Taborites during the Hussite Wars to see man kill his fellow man over religious beliefs. Though religions around the world have basically the same messages of virtue, love, and a universal precept of the brotherhood of man, intolerance of the difference in ritual practices is what gets men killed. It is usually not what a group believes but how they believe it. As James Q. Wilson, a contemporary philosopher, writes "[t]he Bible

enjoins us to "love thy neighbor as thyself"; the Koran (or Qur'an) reminds us that "human beings are worthy of esteem because they are human" and that the "kindness of God .... has now bound your hearts together, so that through His goodness you may become brothers .... Buddha taught compassion and self-sacrifice; "right conduct" was one of the stages of the Eightfold Path along which an individual could seek an end to suffering."<sup>45</sup>

These messages of tolerance are a common thread in organized religious belief systems. Hinduism is an example of a religion that takes that idea a step further to tolerate the caste system and social injustice. With the hopes of achieving a better life in the next incarnation, a Hindu accepts his given life standard like saltpeter on the urges of aggression. Hinduism, created to ensure that the Persians kept Indians happy with their lot in life in the lower classes, does not in itself foment aggression; in fact it has the opposite effect. Despite the messages in organized religious belief systems, man convolutes his religious beliefs to become the very reasons why he must kill.

Although not the sole reason for cultures to clash, religion has often been a large factor in the conflicts that have led to intervention with stability and support operations. In the Sudan, the imposition of the shari'a and subjugation of animists in the south by Islamic leaders



from the north contributes to the widespread suffering and bloody conflict.<sup>46</sup>

In addition to religious beliefs, survival and propagation of the culture are clearly manifested in man's zealousness to protect and extend his resources. Resource protection and expansion ensures that a group's way of life is maintained, grown, and passed on to its successive generations. Resources range from the women of the culture who will bear the next generation to the staple crop that will ensure the group does not starve. The sovereignty and borders of a society are also a prized collective possession.

The Spanish Conquistadors in the sixteenth century conquered and exploited the indigenous peoples of the New World in Mexico, Central America, and Peru in order to bring back riches.<sup>47</sup> The native peoples fought for the very survival of their culture while the conquistadors fought for the expansion of the Spanish crown.

An example of a stability and support operation that became a major regional conflict, Desert Storm in 1990-1991 is a recent example of cultures killing each other over resources. Fought by a coalition of Western and Arab nations against Iraq and its invasion of Kuwait, the war was over a very important commodity: oil. The primary purpose was to ensure that a potentially deleterious percentage of the world's oil production capability and supply was not in the hands of Iraqi

strongman Saddam Hussein. Additionally, the sovereignty of Kuwait and the restoration of her borders were also of significant importance to the belligerents.

An example of fighting over reproductive resources is found among the Yanomamö. Living in an area of sufficient space and abundant natural resources, the Yanomamö usually go to war between villages over another resource: women. The men of the Yanomamö organize into raiding parties to exact revenge and steal the other villages' women, typically killing the children in the village. In fact, the word for marriage in their tongue means "dragging something away."<sup>48</sup>

Man's biological imperatives to survive and reproduce also manifest themselves in the cultural-based behavior of dominance hierarchies. Termed "pecking order" after a groundbreaking study done shortly after the First World War, dominance hierarchies have been intensely studied by scientists in the intervening years. These studies of pecking order have yielded "some startling revelations. Position in the pecking order ... [r]eadjusts your life-style, your chances of survival, your sex life, and your physiology."<sup>49</sup>

Pecking order is not limited to individual chickens, chimpanzees, or humans, it is also seen between groups. It is the age-old conflict theme of "us versus them." Pecking order relates to memes that uniquely identify "us" as groups and are therefore the cultural

foundation of the biological imperative of survival, which leads to aggression.

An upset in the pecking order of global proportions came about during and after the Second World War. Nations jostled for power as the fate of the European continent hung in the balance until 1945. The global superpower reins were relinquished by Great Britain to the United States by 1944. From that time on the Soviet Union and the United States were locked in a battle of wills over global hegemony.

The Cuban Missile Crisis represents a point in time during the Cold War when the United States and the Soviet Union sat on the horrifying brink of nuclear exchange. In 1962, President Kennedy called the construction of missile sites in Cuba by the Russians "Sudden and clandestine....deliberately provocative and unjustified change in the status quo which cannot be accepted by the country."<sup>50</sup> The status quo also was the balance of power between the superpowers; the crisis in Cuba was destabilizing to the global pecking order.

A smaller pecking order issue, but on the same order of magnitude to the peoples of the day, was the balance of power dispute in Western Europe in 1511. The Doge of Venice, the King of Spain, Pope Julius II, and King Henry VIII of England formed the Holy League to reduce France's power on the continent.<sup>51</sup> As a result of this war

alliance, France was defeated and the European balance of power restored.

Resource accumulation and delusions of racial superiority were on the minds of Japanese leaders as World War Two began to take shape in the Pacific. Believing themselves to be the "leading race," the Japanese reassured their allies/conquered nations that they were trying to build a new world order.<sup>52</sup> As John Dower writes of the Japanese rhetoric of unifying the nations of the Pacific:

"Hundreds of millions of Asians learned a similar lesson: That when the Japanese spoke of creating a "new order" in which each race and nations assumed its proper place, it was taken for granted that the proper place of everyone else was below the Japanese....Once the European and American demons were expelled from Asia, the Japanese were to take their places as the new and destined overlords."<sup>53</sup>

In all of these examples of dominance hierarchies causing conflict, nation states are the named participants but the survival of cultures, not nationalism, is the impetus behind the collective aggression. Stability and support operations often involve "cleaning up" in the aftermath of discomposed dominance hierarchies in need of mending. The Multinational Force and Observers in the Sinai are an

example of maintaining a balance of power within a dominance hierarchy in the Middle East between Palestinian cultures.

Man's behavior comes from his culture; his culture evolves in concert with his biological evolution. The memes of religious fervor, resource protection, and dominance ambition control man's behavior and lead to collective aggression. Man wages war on his fellow man because he is genetically and culturally driven to do so. Culture, however, is diverse. Each culture embodies many more memes than just the ones that drive men to fight; man's brain has three parts, not just the testosterone fueled and reptilian centers of aggression. Free will allows man flight or fight – he makes a choice. His choices, though, are explainable when one considers the cultural and biological foundations of his existence.

## CHAPTER FOUR

### Implications and Conclusion

Americans think of themselves collectively as a huge rescue squad on twenty-four-hour call to any spot on the globe where dispute and conflict may erupt.<sup>54</sup> Eldridge Cleaver

Mutual respect implies discretion and reserve even in love itself; it means preserving as much liberty as possible to those whose life we share. We must distrust our instinct of intervention, for the desire to make one's own will prevail is often disguised under the mask of solicitude.<sup>55</sup> Henri-Frederic Amiel

But what of flight or fight when it is not "your" fight? The cultural and biological foundations of man's existence give him the wherewithal to act aggressively and wage war as well as to prosecute peace. When a society exercises its free will and decides to wage war then its "neighbors" are forced to decide whether to join in the maelstrom, watch, or interfere.

Stability and support operations represent a society's choice to interfere under the guise of "humanitarian intervention." Proving the validity of both Rousseau's and Hobbes' assertions of why man fights, stability and support operations support the idea that the central authority, strict laws, and bureaucracy of "civilization" in complex

societies are both the cause of conflict and, paradoxically when absent, are the exigent ameliorating constructs for peace. A clash of cultures and even sometimes subcultures, stability and support operations cover a wide range that spans from attempting to create government in a failed state as in Somalia to enforcing the will of the people and wresting control out of governmental hands as in East Timor. To survive in this complicated environment, one must understand the sociobiological implications of why the society has chosen conflict over peace.

How should participants in stability and support operations prepare for the situations they encounter? In order to commit national treasure wisely, efficiently, and successfully in support of stability and support operations, one must identify the underlying causes of the conflict and the incentives and disincentives in modifying the belligerents' behavior.

The very nature of stability and support operations necessitates that those who participate do so armed with an extensive knowledge of the belligerents' cultures as well as the biological underpinnings of man's penchant for collective aggression. When searching for the sources (not just symptoms) of the conflict one must engage in an archaeological search among the memes of religious fervor, resource protection, and dominance hierarchies buried within the cultural strata

of that society. A multifaceted analysis, one must overlay the axiomatic biological urges for aggression that perhaps have replaced law and order. Especially in the situations where the nation state has collapsed, the façade of civilization is removed and cultures are organized into the lowest common denominator vying for survival and improving or preserving their position in the pecking order.

An example of a long-running, complicated series of stability and support operations needing just such a complex analysis were the international aid efforts in Somalia during 1992 through 1994. The situation in Somalia today, and then, must be deciphered in terms of the preeminent memes concerning dominance hierarchies, resource protection, and the biological imperative for survival.

Knowledge of clans and sub-clans is imperative to understanding the pecking order within Somali society. A mostly nomadic people, Somalis consider honor and allegiance to one's clan much stronger than to one's nation. Even among clans, however, there is a hierarchy based on status and lifestyle. The nomadic clan families believe that they are superior to the southern pastoral clans and enjoy a higher political and social status within Somali society. The lowest members of society in the pecking order, similar to Bantu traditions, are the sedentary blacksmiths.<sup>56</sup>



The contest over resources, a cultural manifestation of the biological imperative of survival, was fundamental to the conflict in the early 1990s in Somalia. The mass starvation of the population was only a symptom of a deeper-rooted class struggle between the nomadic peoples that demanded food resources and the agriculturalists that produced them. The government that did exist, prior to its implosion, favored the pastoral southern families and failed to ensure that the nation's bounty was availed to all.

When searching for the disincentives and incentives to change a population's aggressive behavior, one must also consider the cultural factors at the root of the conflict and what will neutralize them. To be successful at altering a culture, one must have a thorough understanding of the memes "at work."

For example, many stability and support operations require the intervening parties to provide food and aid to an impoverished people. In Arab cultures, however, charitable assistance must be delicately administered. Saving face is so important that an Arab will go to great lengths, even physical discomfort or danger to maintain his image to those outside his kin group. These attitudes of honor and image are exemplified best in the Bedouin proverb "I'd rather die of starvation than ask for help."<sup>57</sup>

The sociobiological foundations of stability and support operations have implications for United States Army doctrine. If the “Army’s success on and off the battlefield depends on its ability to operate in accordance with the five basic tenets ...[of] agility, initiative, depth, synchronization, and versatility” then it is critical that a new tenet be added to ensure success on and off the battlefield: cross-cultural exploitation.<sup>58</sup> As this monograph has shown, apprehending the sociobiological foundations of why man fights is fundamental to understanding the mental depth of the battle space, ensuring operational versatility in new environments, and allowing rapid shifts of cultural agility in order to seize the initiative in any environment. This cross-cultural exploitation gives the Army a critical perspective to see into situations and act decisively, knowledgeably, and deftly in the most complex of environments – stability and support operations.

The success of stability and support operations hinges on the versatile warrior of today possessing the *coup d’oeil* of sociobiological knowledge of the belligerents.<sup>59</sup> With a thorough understanding of why man wages war, intervening third parties are “armed” with the ability to accurately identify the underlying sources (not just symptoms) of the conflict and the incentives and disincentives in modifying the belligerents’ behavior.

## **ANNEX A**

### **Types of Societies<sup>60</sup>**

	<i>Band</i>	<i>Tribe</i>	<i>Chiefdom</i>	<i>State</i>
<b>Membership</b>				
Number of people	dozens	hundreds	thousands	over 50,000
Settlement pattern	nomadic	fixed: 1 village	fixed: 1 or more villages	fixed: many villages and cities
Basis of relationships	kin	kin-based clans	class and residence	class and residence
Ethnicities and languages	1	1	1	1 or more
<b>Government</b>				
Decision making, leadership	"egalitarian"	"egalitarian" or big-man	centralized, hereditary	centralized
Bureaucracy	none	none	none, or 1 or 2 levels	many levels
Monopoly of force and information	no	none	yes	yes
Conflict resolution	informal	informal	centralized	laws, judges
Hierarchy of settlement	no	no	no --> paramount village	capital
<b>Religion</b>				
Justifies kleptocracy?	no	no	yes	yes --> no
<b>Economy</b>				
Food production	no	no --> yes	yes --> intensive	intensive
Division of labor	no	no	no --> yes	yes
Exchanges	reciprocal	reciprocal	redistributive ("tribute")	redistributive ("taxes")
Control of land	band	clan	chiefdom	various
<b>Society</b>				
Stratified	no	no	yes, by kin	yes, not by kin
Slavery	no	no	small-scale	large-scale
Luxury goods for elite	no	no	yes	yes
Public architecture	no	no	no --> yes	yes
Indigenous literacy	no	no	no	often

## BIBLIOGRAPHY

### Books and Periodicals

- Bellamy, Christopher. *The Evolution of Modern Land Warfare: Theory and Practice*. London: Routledge, 1990.
- Bloom, Howard. *The Lucifer Principle: A Scientific Expedition Into the Forces of History*. New York: The Atlantic Monthly Press, 1997.
- Carpenter, Ted G. *Delusions of Grandeur: United Nations and Global Intervention*. Washington, D.C.: CATO Institute, 1997.
- Clarke, Walter S. *Somalia: Background Information for Operation Restore Hope 1992-93*. Carlisle Barracks, Pennsylvania: US Army War College, 1992.
- Clausewitz, Carl Von. *On War*, ed. and trans. Michael Howard and Peter Paret. Princeton, New Jersey: Princeton University Press, 1976.
- Daniel, Donald C. F. and Hayes, Bradd C. *Beyond Traditional Peacekeeping*. New York: St. Martin's Press, 1995.
- Dawson, Doyne. "The Origins of War: Biological and Anthropological Theories," *History and Theory: Studies in the Philosophy of History* 35, no. 1 (1996) : 1-28.
- Diamond, Jared. *Guns, Germs, and Steel: The Fates of Human Societies*. New York: W. W. Norton and Co., 1997.
- Dower, John W. *War Without Mercy: Race & Power in the Pacific War*. New York: Pantheon Books, 1986.
- Durch, William J. *The Evolution of UN Peacekeeping*. New York: St. Martin's Press, 1993.
- \_\_\_\_\_. *UN Peacekeeping, American Politics, and the Uncivil Wars of the 1990s*. New York: St. Martin's Press, 1996.
- Ehrenreich, Barbara. *Blood Rites: Origins and History of the Passions of*

- War. New York: Henry Holt and Company, Inc., 1997.
- Ghiglieri, Michael P. *The Dark Side of Man: Tracing the Origins of Male Violence*. Reading, Massachusetts: Helix Books, 1999.
- Grossman, Dave. *On Killing: The Psychological Cost of Learning to Kill in War and Society*. New York: Little, Brown and Co., 1996.
- Huntington, Samuel P. *Political Order in Changing Societies*. Clinton, Massachusetts: Colonial Press, Inc., 1974.
- \_\_\_\_\_. *The Clash of Civilizations and the Remaking of World Order*. New York: Simon & Schuster, 1996.
- Issa-Salwe, Abdisalam M. *The Collapse of the Somali State: The Impact of the Colonial Legacy*. London: HAAN Publishing, 1996.
- Kagan, Donald. *On the Origins of War and the Preservation of Peace*. New York: Doubleday, 1995.
- Keeley, Lawrence H. *War Before Civilization: The Myth of the Peaceful Savage*. Oxford: Oxford University Press, Inc., 1996.
- Klimow, Matthew S. *Moral Versus Practical: The Future of US Armed Humanitarian Intervention*. Martello Papers. Kingston, Ontario, Canada: Centre for International Relations, Queens University, 1996.
- Lyons, Terrence and Samatar, Ahmed I. *Somalia: State Collapse, Multilateral Intervention, and Strategies for Political Reconstruction*. Washington, D.C.: Brookings Institution Press, 1995.
- Luttwak, Edward N. "Give War a Chance," *Foreign Affairs* 78, July/August, no. 4 (1999): 36-44.
- McNeil, Elton B. *The Nature of Human Conflict*. New Jersey: Prentice-Hall, Inc., 1965.
- Patai, Raphael. *The Arab Mind*. New York: Charles Scribner's Sons, 1973.
- Sahnoun, Mohamed. *Somalia: The Missed Opportunities*. Washington,

- D.C.: United States Institute of Peace Press, 1994.
- Shalit, Ben. *The Psychology of Conflict and Combat*. New York: Praeger Publishers, 1988.
- Skinner, B. F. *Beyond Freedom and Dignity*. New York: Alfred A. Knopf, 1971.
- VanLane, Theodore H. "Reflections on War and Peace," *History and Theory* 37, number 1 (1998): 111-123.
- Wilson, Edward O. *Consilience: The Unity of Knowledge*. New York: Vintage Books, 1999.
- \_\_\_\_\_. *On Human Nature*. Cambridge, Massachusetts: Harvard University Press, 1978.
- Wilson, James Q. *The Moral Sense*. New York: Simon & Schuster, 1993.
- Wright, Quincy. *A Study of War*. Chicago: The University of Chicago Press, 1964.

#### **Internet Sources and Electronic Media**

Maney, Edward K. (CH, LTC, USA), "An Overview of Perceived Relative Deprivation (PRD)"; available from <http://www.cgsc.army.mil/djco/courses/c500/lsn2/ln2web1.htm>; Internet; accessed 11 June 1998.

Microsoft Bookshelf 2000 CD-ROM.

#### **Field Manual**

Department of the Army. FM 100-5, *Operations*. Fort Monroe, VA: US

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## ENDNOTES

<sup>1</sup> Martin Van Creveld, *The Transformation of War* (New York: Free Press, 1991), 166 as quoted by Barbara Ehrenreich, *Blood Rites* (New York: Henry Holt and Company, Inc., 1997), 7.

<sup>2</sup> It took forty-three years for the United Nations to establish the first thirteen peacekeeping operations. The next thirteen peacekeeping operations happened in only forty-three months. See Donald C.F. Daniel and Bradd C. Hayes, *Beyond Traditional Peacekeeping* (New York: St. Martin's Press, 1995), xvi.

<sup>3</sup> Cormac McCarthy *Blood Meridian, Or the Evening Redness in the West* (New York: Vintage, 1985), 248 quoted by Barbara Ehrenreich, *Blood Rites* (New York: Henry Holt and Company, Inc., 1997), 117.

<sup>4</sup> "The term *primitive*, when used in its usual sense in anthropology, merely refers to a technological condition -- that of using pre-industrial or preliterate technology. In social terms, primitive refers to societies that are not urban or literate." See Lawrence H. Keeley, *War Before Civilization: The Myth of the Peaceful Savage* (Oxford: Oxford University Press, Inc., 1996), 27.

<sup>5</sup> Lawrence H. Keeley, *War Before Civilization: The Myth of the Peaceful Savage* (Oxford: Oxford University Press, Inc., 1996), 5.

<sup>6</sup> Lawrence H. Keeley, *War Before Civilization: The Myth of the Peaceful Savage* (Oxford: Oxford University Press, Inc., 1996), 6.

<sup>7</sup> Lawrence H. Keeley, *War Before Civilization: The Myth of the Peaceful Savage* (Oxford: Oxford University Press, Inc., 1996), 6.

<sup>8</sup> Edward O. Wilson, *On Human Nature* (Cambridge: Harvard University Press, 1978), 214, 217-220. Wilson defines natural selection best in his definition of Darwinism: "[t]he genetic compositions of populations change through time -- and thus evolve -- first because individual members of the populations vary among themselves in their hereditary material, and second because those endowed with the properties best fitting them for survival and reproduction will be disproportionately represented in later generations." He defines group selection as "[a]ny process, such as competition, the effects of disease, or the ability to reproduce, that results in one group of individuals leaving more descendants than another group," kin selection as "[t]he increase of certain genes over others in a population as a result of one or more individuals favoring the survival and reproduction of relatives who therefore are likely to possess the same genes by common descent," and individual selection as "[n]atural selection favoring the individual and its direct descendants."

<sup>9</sup> Howard Bloom, *The Lucifer Principle: A Scientific Expedition into the Forces of History* (New York: Atlantic Monthly Press, 1995), 25-27 quoting Paul D. McLean, *A Triune Concept of the Brain and Behavior* (Toronto: University of Toronto Press, 1973).

<sup>10</sup> Michael P. Ghiglieri, *The Dark Side of Man: Tracing the Origins of Male Violence* (Reading Massachusetts: Perseus Books, 1999), 166. Recent discoveries have found that humans are more closely related to chimpanzees than chimpanzees are to apes. Chimpanzees are man's closest related species. Humans and chimpanzees share 98.4% of the same DNA; apes and chimpanzees share 97.9%.

- <sup>11</sup> Howard Bloom, *The Lucifer Principle: A Scientific Expedition into the Forces of History* (New York: Atlantic Monthly Press, 1995), 28.
- <sup>12</sup> Autocatalysis is defined in *Webster's New Collegiate Dictionary* (1981) as "catalysis of a reaction by one of its products." Catalysis is defined as "an action or reaction between two or more persons or forces precipitated by a separate agent and esp. by one that is essentially unaltered by the reaction."
- <sup>13</sup> Epigenetic rules, "as recognized in biology....comprise the full range of inherited regularities of development in anatomy, physiology, cognition, and behavior. They are the algorithms of growth and differentiation that create a fully functioning organism." Definition from Edward O. Wilson, *Consilience* (New York: Vintage Books, 1998), 163.
- <sup>14</sup> Edward O. Wilson, *Consilience* (New York: Vintage Books, 1998), 165.
- <sup>15</sup> Old Testament, Ezra chapter 9
- <sup>16</sup> John W. Dower, *War Without Mercy: Race and Power in the Pacific War* (New York: Pantheon Books, 1986), 108.
- <sup>17</sup> Bloom refers to T.E. Lawrence and *The Seven Pillars of Wisdom* in his description of one of the prized activities of Bedouin life -- raiding. Howard Bloom, *The Lucifer Principle: A Scientific Expedition into the Forces of History* (New York: Atlantic Monthly Press, 1995), 155. Although Bloom's description is that most Arabs of noble descent "dedicated almost [their] entire adult life to raiding -- rushing into some cluster of tents a dozen miles from home, killing a few of the men, and stealing the camels, the sheep, and a few old clothes" Raphael Patai instead describes raiding as an honorable institution, a favorite pastime and economic necessity, sometimes intertribal. According to the ritual's boundaries, raiders were careful that it did not result in bloodshed or it would then transform the raid into an undesirable blood feud. Another significant meme in Arab Bedouin society was the importance of the sexual honor of the women. Clearly, protecting the women of the tribe, especially during a raid protected the genetic purity of the tribe. Accordingly exogamy is not practiced within Bedouin society. Raphael Patai, *The Arab Mind* (New York: Charles Scribner's Sons, 1973), 90, 80, 215, 310.
- <sup>18</sup> Howard Bloom, *The Lucifer Principle: A Scientific Expedition into the Forces of History* (New York: Atlantic Monthly Press, 1995), 156.
- <sup>19</sup> Napoleon A. Chagnon, *Yanomamö*, Fifth Edition (Fort Worth: Harcourt Brace College Publishers, 1997), 205.
- <sup>20</sup> Michael P. Ghiglieri, *The Dark Side of Man: Tracing the Origins of Male Violence* (Reading Massachusetts: Perseus Books, 1999), 30.
- <sup>21</sup> Michael P. Ghiglieri, *The Dark Side of Man: Tracing the Origins of Male Violence* (Reading Massachusetts: Perseus Books, 1999), 91.
- <sup>22</sup> Howard Bloom, *The Lucifer Principle: A Scientific Expedition into the Forces of History* (New York: Atlantic Monthly Press, 1995), 342 and Ghiglieri, Michael P., *The Dark Side of Man: Tracing the Origins of Male Violence* (Reading Massachusetts: Perseus Books, 1999), 90.
- <sup>23</sup> Napoleon A. Chagnon, *Yanomamö*, Fifth Edition (Fort Worth: Harcourt Brace College Publishers, 1997), 190.
- <sup>24</sup> Quote by George Steiner (b. 1929), French-born critic and novelist from his work *Language and Silence*, Preface (1967) found on Microsoft Bookshelf 2000 CD-ROM.
- <sup>25</sup> Michael P. Ghiglieri, *The Dark Side of Man: Tracing the Origins of Male Violence* (Reading Massachusetts: Perseus Books, 1999), 235. Ghiglieri quotes Charles Darwin from 1871.
- <sup>26</sup> Edward O. Wilson, *On Human Nature* (Cambridge: Harvard University Press, 1978), 87.
- <sup>27</sup> B.F. Skinner, *Beyond Freedom and Dignity* (New York: Alfred A. Knopf, 1971), 129.
- <sup>28</sup> Edward O. Wilson, *Consilience* (New York: Vintage Books, 1998), 138.



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- <sup>29</sup> Skinner, B.F., *Beyond Freedom and Dignity* (New York: Alfred A. Knopf, 1971), 129.
- <sup>30</sup> Edward O. Wilson, *On Human Nature* (Cambridge: Harvard University Press, 1978), 116. Cultural drift describes gradual changes in the culture of a discrete society as rituals and their meanings are forgotten over successive generations. The resulting culture of the society thus "drifts" away from its former total way of life and creates a new culture.
- <sup>31</sup> Edward O. Wilson, *On Human Nature* (Cambridge: Harvard University Press, 1978), 116.
- <sup>32</sup> Recent studies on lions, hyenas, and langur monkeys have shown far higher rates of lethal fighting, infanticide, and cannibalism than in human societies. See Edward O. Wilson, *On Human Nature* (Cambridge: Harvard University Press, 1978), 103, 104.
- <sup>33</sup> Edward O. Wilson, *On Human Nature* (Cambridge: Harvard University Press, 1978), 116.
- <sup>34</sup> Edward O. Wilson, *Consilience* (New York: Vintage Books, 1998), 141.
- <sup>35</sup> Edward O. Wilson, *Consilience* (New York: Vintage Books, 1998), 148. The term memes is defined as the basic elemental units of culture. Wilson refers in his text to other authors' terms that have been used to describe culture units: "mnemotype, idea, idene, meme, sociogene, concept, culturgen, and culture type."
- <sup>36</sup> See Annex A for a matrix that defines the attributes for bands, tribes, chiefdoms, and states.
- <sup>37</sup> Jared M. Diamond, *Guns, Germs, and Steel -- The Fates of Human Societies* (New York: W.W. Norton & Co., Inc., 1997), 284.
- <sup>38</sup> Jared M. Diamond, *Guns, Germs, and Steel -- The Fates of Human Societies* (New York: W.W. Norton & Co., Inc., 1997), 285.
- <sup>39</sup> Jared M. Diamond, *Guns, Germs, and Steel -- The Fates of Human Societies* (New York: W.W. Norton & Co., Inc., 1997), 276, 285. According to Diamond, the difference between a kleptocrat and wise statesman is the perceived transfer of wealth from the commoners to the elite class. A kleptocracy therefore keeps too much of the working man's wealth for itself, rather than equitably redistributing wealth.
- <sup>40</sup> Jared M. Diamond, *Guns, Germs, and Steel -- The Fates of Human Societies* (New York: W.W. Norton & Co., Inc., 1997), 268. Table 14.1 Types of Societies.
- <sup>41</sup> Edward K. Maney, CH(LTC) USA, "An Overview of Perceived Relative Deprivation (PRD)" <http://www-cgsc.army.mil/djco/COURSES/C500/lsn2/LN2WEB1.htm> In this article Chaplain Maney discusses the ideas of Tedd R. Gurr's book *Why Men Rebel* and his conceptual model that explains the causes of conflict in a society.
- <sup>42</sup> Jared M. Diamond, *Guns, Germs, and Steel -- The Fates of Human Societies* (New York: W.W. Norton & Co., Inc., 1997), 286.
- <sup>43</sup> Jared M. Diamond, *Guns, Germs, and Steel -- The Fates of Human Societies* (New York: W.W. Norton & Co., Inc., 1997), 286.
- <sup>44</sup> Jared M. Diamond, *Guns, Germs, and Steel -- The Fates of Human Societies* (New York: W.W. Norton & Co., Inc., 1997), 288.
- <sup>45</sup> James Q. Wilson, *The Moral Sense* (New York: Simon & Schuster, 1993), 199.
- <sup>46</sup> Raphael Patai, *The Arab Mind* (New York: Charles Scribner's Sons, 1973), 100. A part of the Arab ethical system that is post-Islamic, the shari'a is the traditional law of Islam developed from the Koran.
- <sup>47</sup> Microsoft Bookshelf 2000 CD-ROM.
- <sup>48</sup> Howard Bloom, *The Lucifer Principle: A Scientific Expedition into the Forces of History* (New York: Atlantic Monthly Press, 1995), 38.
- <sup>49</sup> Howard Bloom, *The Lucifer Principle: A Scientific Expedition into the Forces of History* (New York: Atlantic Monthly Press, 1995), 195-197. Howard Bloom describes Norwegian naturalist Thorlief Schjelderup-Ebbe's exhaustive study of chickens and barnyard behavior.

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- <sup>50</sup> Donald Kagan, *On the Origins of War and the Preservation of Peace* (New York: Doubleday, 1995), 437.
- <sup>51</sup> Microsoft Bookshelf 2000 CD-ROM.
- <sup>52</sup> John W. Dower, *War Without Mercy: Race and Power in the Pacific War* (New York: Pantheon Books, 1986), 261.
- <sup>53</sup> John W. Dower, *War Without Mercy: Race and Power in the Pacific War* (New York: Pantheon Books, 1986), 261.
- <sup>54</sup> Eldridge Cleaver (b. 1935), U.S. civil rights leader, writer. *Soul on Ice*, "Rallying Round the Flag" (1968) from the Microsoft Bookshelf 2000 CD-ROM.
- <sup>55</sup> Henri-Frédéric Amiel (1821-81), Swiss philosopher, poet. *Journal Intime* (1882; tr. by Mrs. Humphry Ward, 1892), entry for November 7, 1862 from the Microsoft Bookshelf 2000 CD-ROM.
- <sup>56</sup> Walter S. Clarke, *Somalia: Background Information for Operation Restore Hope 1992-93* (Carlisle Barracks, Pennsylvania: US Army War College, 1992), 6-9.
- <sup>57</sup> Raphael Patai, *The Arab Mind* (New York: Charles Scribner's Sons, 1973), 105.
- <sup>58</sup> United States Army, FM 100-5, *Operations*, (Fort Monroe, VA: US Army Training and Doctrine Command, 14 June 1993), 2-6 to 2-9.
- <sup>59</sup> Carl Von Clausewitz, *On War*, ed. Michael Howard and Peter Paret (Princeton, New Jersey: Princeton University Press, 1976), 102. Clausewitz defines *coup d'oeil* as "an intellect that, even in the darkest hour, retains some glimmerings of the inner light which leads to truth..... *Coup d'oeil* therefore refers not alone to the physical but, more commonly, to the inward eye."
- <sup>60</sup> Jared M. Diamond, *Guns, Germs, and Steel -- The Fates of Human Societies* (New York: W.W. Norton & Co., Inc., 1997), 268, 269.